



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,302	06/21/2001	Atley Padgett Peterson	VF-03272	5599
28581	7590	05/03/2005	EXAMINER	
DUANE MORRIS LLP PO BOX 5203 PRINCETON, NJ 08543-5203			CHEN, SHIN HON	
			ART UNIT	PAPER NUMBER
			2131	
DATE MAILED: 05/03/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/886,302

Applicant(s)

PETERSON ET AL.

Examiner

Shin-Hon Chen

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-8 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 2-8 and 10 have been examined.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 2 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by O'Brien et al. U.S. Pat. No. 6658571 (hereinafter O'Brien).

4. As per claim 2 and 10, O'Brien discloses a security method for controlling use of an executable application, said method comprising the steps of: procuring a software executable policy enforcement agent which, when invoked, imposes one or more conditions on successful execution, and which, when successfully executed, invokes execution of said executable application (O'Brien: column 2 lines 12-39: software wrapper); encapsulating said executable application with said policy enforcement agent without changing said executable application, to thereby produce a combined program (O'Brien: column 3 lines 38-55); substituting said combined program for said executable application, so that said policy enforcement agent executes instead of said executable application program when said executable application is invoked (O'Brien: column 2 lines 12-39; column 5 line 56 – column 6 line 16); and one of (a)

Art Unit: 2131

satisfying said conditions of said control module, whereby said executable application executes, and (b) not satisfying said conditions, whereby said executable application does not execute (O'Brien: column 6 lines 5-16). O'Brien further discloses wherein said software executable policy enforcement agent includes a header component, and said substituting step includes the step of amending said header component of said policy enforcement agent portion of said combined program to match the characteristics of said combined program (O'Brien: column 2 lines 12-38: software wrapper is known to change the start-up section so the security module can be invoked to process the system call from the software application).

5. As per claim 10, claim 10 discloses the same scope as that of claim 2. Therefore, claim 10 is rejected based on the reasons stated in rejecting claim 2.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien and further in view of Kayashima et al. U.S. Pub. No. 20010025346 (hereinafter Kayashima) and further in view of Eggebraaten et al. U.S. Pub. No. 20020120776 (hereinafter Eggebraaten).

Art Unit: 2131

8. As per claim 3, O'Brien discloses a method according to claim 2. O'Brien does not explicitly disclose wherein said executable application includes a VPN-tunneling-generating application, and said step of satisfying said conditions includes the step of running an antivirus program. However, Kayashima discloses running antivirus and firewall and security policy procedures to perform security management (Kayashima: [0003]-[0014]). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to run antivirus program as security measure to determine whether the application is allowed to execute on the computer system. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Kayashima within the system of O'Brien because using anti-virus program to perform security measures is well known in the art. O'Brien as modified does not explicitly disclose the executable application includes a VPN-tunneling-generating application. However, Eggebraaten discloses VPN software that protect data as it flows through VPN tunnel and use of VPN to protect data communicated through Internet (Eggebraaten: [0007] and [0031]). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Eggebraaten within the combination of O'Brien-Kayashima because it protects data while it's being communicated/transferred to avoid tampering.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien in view of Kayashima and further in view of Eggebraaten and further in view of Wolff et al. U.S. Pub. No. 20020174358 (hereinafter Wolff).

10. As per claim 4, O'Brien discloses a method according to claim 2. O'Brien does not explicitly disclose wherein said executable application includes a VPN-tunneling-generating application, and said step of satisfying said conditions includes the step of running a antivirus program having an acceptable update status. However, Kayashima discloses running antivirus and firewall and security policy procedures to perform security management (Kayashima: [0003]-[0014]). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to run antivirus program as security measure to determine whether the application is allowed to execute on the computer system. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Kayashima within the system of O'Brien because using anti-virus program to perform security measures is well known in the art. O'Brien as modified does not explicitly disclose the executable application includes a VPN-tunneling-generating application. However, Eggebraaten discloses VPN software that protect data as it flows through VPN tunnel and use of VPN to protect data communicated through Internet (Eggebraaten: [0007] and [0031]). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Eggebraaten within the combination of O'Brien-Kayashima because it protects data while it's being communicated/transferred to avoid tampering. O'Brien as modified does not explicitly disclose running an antivirus having an acceptable update status. However, Wolff discloses virus event report that shows update status and it allows virus definition data updates to be downloaded by user or as part of a regular scheduled update process (Wolff: [0010] and [0033]). It would have been obvious to one having ordinary skill in the art to using antivirus program that has acceptable update status to determine the security of data. Therefore, it would

Art Unit: 2131

have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Wolff within the combination of O'Brien-Kayashima-Eggebraaten because only using up-to-date antivirus program allows precise security measure.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien in view of Kayashima.

12. As per claim 5, O'Brien discloses a method according to claim 2. O'Brien does not explicitly disclose wherein said step of satisfying aid conditions includes the step of running a personal firewall program. However, Kayashima discloses running antivirus and firewall and security policy procedures to perform security management (Kayashima: [0003]-[0014]). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to run antivirus program as security measure to determine whether the application is allowed to execute on the computer system. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Kayashima within the system of O'Brien because using anti-virus program to perform security measures is well known in the art.

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien in view of Shear et al. U.S. Pat. No. 6292569 (hereinafter Shear).

14. As per claim 6, O'Brien as modified discloses a method according to claim 2. O'Brien as modified does not explicitly disclose wherein said executable application accepts verification information in a format other than a digital certificate, and said step of satisfying said conditions includes the step of accepting a digital certificate. However, Shear discloses using certificates and digital signatures to protect computer systems from bogus load modules, executables and applications (Shear: abstract and column 5 lines 4-50). It would have been obvious to one having ordinary skill in the art to check the digital certificate of a program before the wrapper program actually invokes the program. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Shear within the system of O'Brien because digital certificates provide certain trust level to a data so that it can be used to determine whether the data is secure or from a secure source.

15. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien in view of Shear and further in view of Atkinson et al. U.S. Pat. No. 6367012 (hereinafter Atkinson).

16. As per claim 7, O'Brien as modified discloses a method according to claim 6. O'Brien as modified does not explicitly disclose wherein said step of accepting a digital certificate includes the step of accepting an X.509 based digital certificate. However, Atkinson discloses embedding standard X.509 digital certificate within executable file in order to check whether the executable file comes from a trusted source (Atkinson: column 2 line 35 – column 3 line 62 and column 7 lines 10-19). It would have been obvious to one having ordinary skill in the art at the time of



Art Unit: 2131

applicant's invention to combine the teachings of Atkinson within the combination of O'Brien-Shear because X.509 digital certificate is a standard format.

17. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien in view of Shear and further in view of Cooper et al. U.S. Pub. No. 20020029350 (hereinafter Cooper).

18. As per claim 8, O'Brien as modified discloses a method according to claim 6. O'Brien as modified does not explicitly disclose the method comprising the step of translating at least some information from said digital certificate into a form recognizable by said executable application. However, Cooper discloses most of the major browser programs can recognize digital certificates and know where and how to store them (Cooper: [0261]). It would have been obvious to one having ordinary skill in the art to use the wrapper program that wraps browser programs to recognize the digital certificate and use the digital certificates to determine whether software/programs are allowed to execute. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Cooper within the combination of O'Brien-Shear because translating digital certificate so that it can be recognized by different programs is well known in the art.

### ***Response to Arguments***

19. Applicant's arguments filed 1/12/05 have been fully considered but they are not persuasive.

Art Unit: 2131

20. Regarding claim 2, applicant argues that the O'Brien reference does not disclose encapsulating the policy enforcement agent without changing said executable application. However, O'Brien reference discloses that software wrapper includes security module which is invoked to intercept system call from software application (O'Brien: column 2 lines 12-38). Therefore, the security module is invoked to change the running parameter according to the security policy and no change is made to the application.

21. Regarding claim 3, applicant argues that the O'Brien reference is used to limit damage to the wrapped commercial software in the event of a successful attack and this presupposition of a successful attack presupposes that all defenses, including antivirus software, have failed. However, the O'Brien reference discloses a mechanism for dynamically wrapping standards to limit the amount of potential damage that a successful attacker or corrupt program can cause. O'Brien does not disclose that it presupposes that all defenses have failed because the purpose of this mechanism is to *limit* the amount of potential damage and there is a possibility that the mechanism is unable to protect system. Therefore, O'Brien reference does not rely on the mechanism as a last resort for defending the system and other protection software applications can also be applied to enhance the security of the system (O'Brien: column 3 lines 54-56: security module can also be used to enforce other types of policies independent of an application).

22. Regarding claim 4, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Art Unit: 2131

Wolff reference is used to clearly support that antivirus software with acceptable update status is well known in the art.

23. Regarding claims 5-8, In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the O'Brien reference discloses that the security module can be used to enforce other security policies independent of application. Therefore, other method of protecting computing system can be combined to enhance the security policy.

24. Regarding claim 10, applicant argues the O'Brien reference does not disclose header or to the data location relative to the header. However, O'Brien discloses the invocation of the security module is performed instead of the software application and it implicitly discloses the header information. Therefore, applicant's argument is respectfully traversed.

### ***Conclusion***

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2131

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shin-Hon Chen whose telephone number is (571) 272-3789. The examiner can normally be reached on Monday through Friday 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SC

Shin-Hon Chen  
Examiner  
Art Unit 2131

  
AYAZ SHEIKH  
SUPERVISOR, PATENT EXAMINER  
TECHNOLOGY CENTER 2100